Dominion Nuclear Connecticut, Inc.
Millstone Power Station
Rope Ferry Road
Waterford, CT 06385

Dominion℠

FEB 15 2010

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Serial No. 10-034
MPS Lic/TGC R0
Docket No. 50-423
License No. NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3
LICENSEE EVENT REPORT 2009-002-00

This letter forwards Licensee Event Report (LER) 2009-002-00 documenting an event that occurred at Millstone Power Station Unit 3, on December 19, 2009. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(iv)(A) as an event that resulted in manual or automatic actuation of systems listed in 10 CFR 50.73(a)(2)(iv)(B).

If you have any questions or require additional information, please contact Mr. William D. Bartron at (860) 444-4301.

Sincerely,

J. D. Semancik
Plant Manager – Millstone

Attachments: 1

Commitments made in this letter: None

IE22
NRR

cc: U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Ms. C. J. Sanders
Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 08B3
Rockville, MD 20852-2738

NRC Senior Resident Inspector
Millstone Power Station

ATTACHMENT

LICENSEE EVENT REPORT 2009-002-00

MILLSTONE POWER STATION UNIT 3
DOMINION NUCLEAR CONNECTICUT, INC.

NRC FORM 366 (9-2007) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 08/31/2010

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Millstone Power Station - Unit 3	05000423	1 OF 3

4. TITLE

Millstone Unit 3 Automatic Reactor Trip

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
12	19	2009	2009	– 002 –	00	02	15	2010	FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE

1

10. POWER LEVEL

100

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*

☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☒ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER
☐ 20.2203(a)(2)(vi)	☐ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (Include Area Code)
William D. Bartron, Supervisor Nuclear Station Licensing	860-444-4301

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES (If yes, complete 15. EXPECTED SUBMISSION DATE) ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

On December 19, 2009 an automatic reactor trip occurred on Millstone Power Station Unit 3 while the unit was in Mode 1, at 100 % power, due to a turbine trip caused by a generator output electrical fault. All control rods fully inserted into the reactor. The auxiliary feedwater pump started as designed and maintained steam generator level. All other post trip actions were standard and all systems operated as expected. A post trip walk-down identified damage to 'C' phase main generator breaker and isophase ducting. There were no radiological challenges as a result of the event.

The most probable cause of the ground fault, which resulted in the turbine trip, was determined to be a manufacturing defect in the main generator breaker, 15G-3U-2, 'C' pole contacts. The 'C' pole of the main generator breaker was repaired. All three poles of the breaker will be inspected during the next refueling outage (3R13) to verify the proper geometry of the contacts as well as the security of the fasteners holding the moving contact piston flange in place.

This event is being reported in accordance with 10 CFR 50.73(a)(2)(iv)(A) as an event that resulted in manual or automatic actuation of systems listed in 10 CFR 50.73(a)(2)(iv)(B).

1. EVENT DESCRIPTION:

On December 19, 2009 an automatic reactor trip occurred on Millstone Power Station Unit 3 (MPS3) while the unit was in Mode 1, at 100 % power, due to a turbine trip caused by a generator output electrical fault. All control rods fully inserted into the reactor. The auxiliary feedwater pump started as designed and maintained steam generator level. All other post trip actions were standard and all systems operated as expected. A post trip walk-down identified damage to 'C' phase main generator breaker and isophase ducting.

There were no radiological challenges as a result of the event.

This event is being reported in accordance with 10 CFR 50.73(a)(2)(iv)(A) as an event that resulted in manual or automatic actuation of systems listed in 10 CFR 50.73(a)(2)(iv)(B).

2. CAUSE:

The Root Cause Team determined the most probable cause of the ground fault, which resulted in the turbine trip, was a manufacturing defect in the main generator [EL] breaker [BKR], 15G-3U-2, 'C' pole moving contact. This defect was a failure of a "punch mark" to secure a screw-in flange to the moving contact piston. This allowed the flange to unscrew over time. When the breaker closed in November, 2009, the flange had unscrewed sufficiently such that the moving contact was not fully engaged in the fixed contact. This condition increased contact resistance, causing temperatures to increase, eventually leading the breaker failure, the ground fault, and the turbine trip.

3. ASSESSMENT OF SAFETY CONSEQUENCES:

The operating crew responded to the reactor trip by entering Emergency Operating Procedure (EOP) 35 E-0, Reactor Trip or Safety Injection. The reactor trip was not complicated by a safety injection allowing transition to EOP ES-0.1, Reactor Trip Response. The electric plant fast transferred from the normal station services transformer (NSST) [XFMR] to the reserve station services transformer (RSST) [XFMR] due to the loss of the NSST on the generator breaker fault. Initial primary plant cool-down was greater than expected. The operating crew took action in accordance with plant procedures, stopping the cool-down by turning off the steam dump valves and isolating steam traps and inactive steam dump valves. The normal heat removal path via the main condenser was intact and available.

The auxiliary feedwater system started automatically on the trip as expected and restored the steam generator levels to their normal operating band. Heat removal capability was maintained.

The operator actions and plant mitigating equipment responded as expected with no safety system failures. There were no challenges to any fission product barrier. Therefore, there were no safety consequences due to the reactor trip.

4. CORRECTIVE ACTION:

The 'C' pole of the main generator breaker was repaired. All three poles of the breaker will be inspected during the next refueling outage (3R13) scheduled in the spring of 2010 to verify the proper geometry of the contacts (moving and fixed) as well as the security of the fasteners holding the moving contact piston flange in place. Additional corrective actions will be evaluated in accordance with the station's corrective action program.

There is no other use of this type breaker at Millstone.

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REV NO.	
Millstone Power Station - Unit 3	05000423	2009	- 002 -	00	3 OF 3

NARRATIVE

5. PREVIOUS OCCURRENCES:

No previous similar events/conditions were identified.

Energy Industry Identification System (EIIS) codes are identified in the text as [XX].